



PUBLIC NOTICE

File Number: NRS 15.063

Pursuant to Chapter 0400-4-7 of the Department's rules, the proposed activity described below has been submitted for approval under an Aquatic Resource Alteration Permit and §401 Water Quality Certification. This notice is intended to inform interested parties of this permit application and to ask for comments and information necessary to determine possible impacts to water quality. No decision has been made whether to issue or deny this application.

APPLICANT: Tracy Meggs, P.E., Civil Engineer
City of Cookeville
1115 East Spring Street
Cookeville, TN 38501
(931) 520-5282

LOCATION: The project is the Bennett Road extension from the Minelick Creek Interchange on I-40 to SR-24/Highway 70N; Cookeville, Putnam County. Lat 36.160340; Long -85.564059

PROJECT DESCRIPTION: The proposed project will consist of the extension of Bennett Road from the Minelick Creek interchange on I-40 and continues 2.71 miles to SR24/Hwy 70N. The typical section consists of 2-12- ft lanes and 10-foot open shoulders with slopes of 4:1 with 3:1 slopes in environmentally sensitive areas. TDOT requires the City to purchase a 160-ft right-of-way for the future addition of 2 lanes. Buffalo Valley Road and SR 24/HWY 70N will be widened to 3-lane sections.

The proposed project will impact 1.60 acres of wetlands and 1024 linear feet of streams. There are 12 wetland areas within the project area. Three will be avoided, 7 partially filled and 2 completely filled. Several unnamed tributaries to Cane Creek and West Blackburn Fork have been identified in the proposed project area. Impacts vary from no impacts to encapsulation to relocation to encapsulation and relocation. Approximately 1376 linear feet will be relocated. A table is attached to this notice that details these impacts.

As compensatory mitigation for the impacts to streams the applicant proposes to purchase credits from the Tennessee Stream Mitigation Program. Wetland impacts will be compensated for in the Cane Creek watershed where the impacts are occurring. It shall consist of the enhancement of approximately 6.05 acres and the creation of 0.2 acres on Bob Gentry Road in Cookeville.

DEGRADATION: In accordance with the Tennessee Antidegradation Statement (Rule 0400-40-03-.06), the division has determined that the proposed activities will result in degradation to water quality.

WATERSHED / WATERBODY DESCRIPTION: The proposed project lies within the Caney Fork Watershed (HUC 051330108) watershed and the Cordell Hull Lake-Cumberland River

(HUC05130106) watershed. More information can be found at <http://www.state.tn.us/environment/caneforkriverwatersheds/.shtml> . The conveyance to be impacted has an average depth and width at just over one foot. The stream has no riparian area and it runs through an open field that is regularly mowed. Surrounding land use is residential and commercial.

Stream Name / ID #: Unnamed tributary to Cane Creek TN05130108045_0150
Ecoregion: Eastern Highland Rim 71g
Stream Dimension: n/a

Substrate:	rock, gravel, silt	
Designated Use	Use Support	Causes
Fish and aquatic life	not supporting	physical substrate habitat alterations,
Recreation	not supporting	sedimentation/siltation
Irrigation	fully supporting	
Livestock watering & wildlife	fully supporting	

PERMIT COORDINATOR: Mike Lee

FACTORS CONSIDERED: In deciding whether to issue or deny a permit, the department will consider all comments of record and the requirements of applicable federal and state laws. In making this decision, a determination will be made regarding the lost value of the resource compared to the value of any proposed mitigation. The department shall consider practicable alternatives to the alteration. The department shall also consider loss of waters or habitat, diminishment in biological diversity, cumulative or secondary impacts to the water resource, and adverse impact to unique, high quality, or impaired waters.

COMMENTING: Persons wishing to comment on the proposal are invited to submit written comments to the department. Written comments must be received within **thirty days of the date that this notice is posted**. Comments will become part of the record and will be considered in the final decision. The applicant's name and permit number should be referenced. Send all written comments to the department's address listed below and to the attention of the permit coordinator.

PUBLIC HEARING: Interested persons may request in writing that the department hold a public hearing on this application. The request must be filed within the comment period, indicate the interest of the person requesting it, the reasons that the hearing is warranted, and the water quality issues being raised. When there is sufficient public interest in water quality issues, the department will hold a public hearing. Send all public hearing request to the department's address listed below and to the attention of the permit coordinator.

APPEAL: A permit appeal may be filed, pursuant to T.C.A. §§ 69-3-105(i) and Rule 0400-40-05, by the permit applicant or by any aggrieved person who participated in the public comment period announced by this notice. This petition must be filed within THIRTY (30) DAYS after public notice of the issuance of the permit. The petition must specify what provisions are being appealed and the basis for the appeal. It should be addressed to the technical secretary of the

Tennessee Board of Water Quality, Oil and Gas at the following address: Tisha Calabrese Benton, Director, Division of Water Resources, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Ave, 11th floor, Nashville, TN 37243. Any hearing would be in accordance with T.C.A. §§69-3-110 and 4-5-301 et seq.

FILE REVIEW: The permit application, supporting documentation including detailed plans and maps, and related comments are available at the department's address (listed below) for review and/or copying.

Tennessee Department of Environment & Conservation
Division of Water Resources, Natural Resources Unit
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243

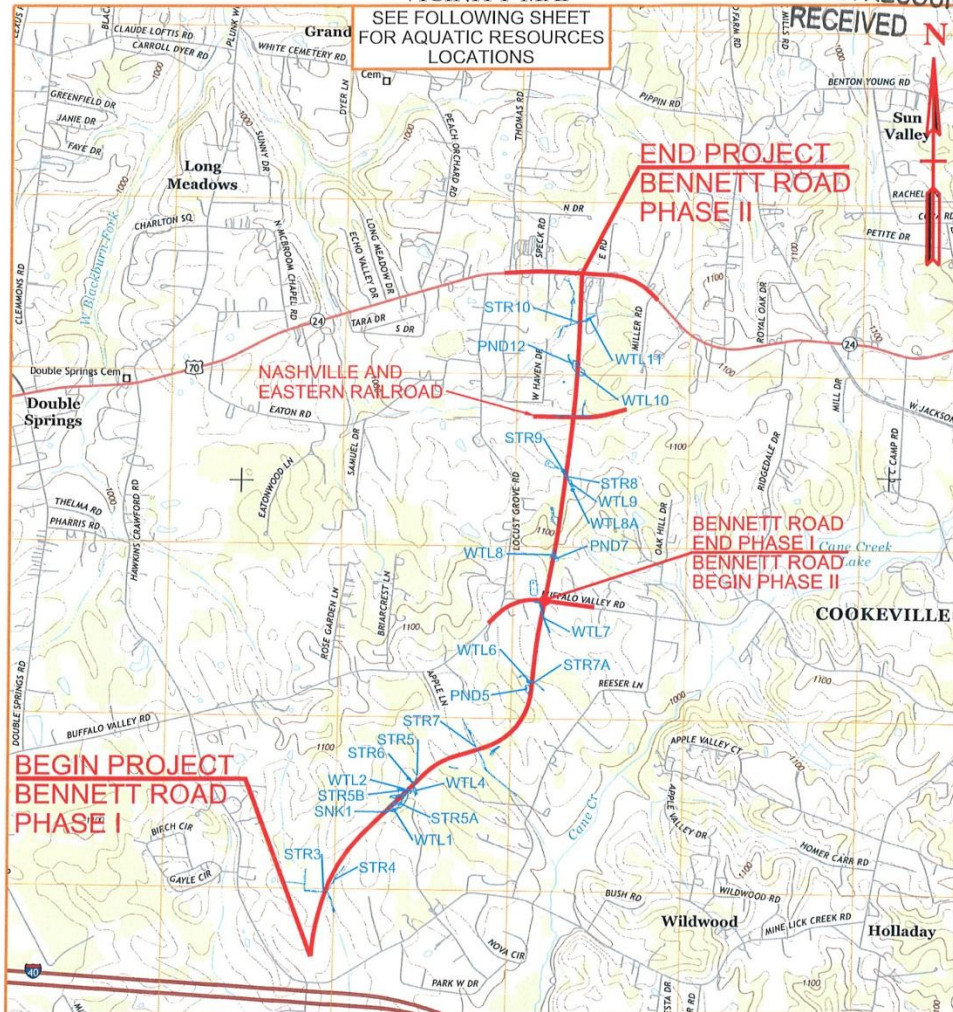
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AND CONSERVATION

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DIV OF WATER RESOURCES

VICINITY MAP

SEE FOLLOWING SHEET
FOR AQUATIC RESOURCES
LOCATIONS



APPLICATION BY:

CITY OF COOKEVILLE
PE # 71LPLM-S3-015/71LPLM-S3-016
PIN 117571.00/117572.00
FED. CONST. PROJ. # STP-M-9204(11)/
STP-M-9204(10)
QUAD: COOKEVILLE WEST

BENNETT ROAD - PHASE I AND PHASE II
PHASE I - MINELICK CREEK INTERCHANGE TO
BUFFALO VALLEY ROAD
PHASE II - BUFFALO VALLEY ROAD TO
SR 24/ HWY 70
CONTOUR INTERVAL = 20 FT
COUNTY: PUTNAM COUNTY
NEAR: CITY OF COOKEVILLE

DATE: 02/20/15

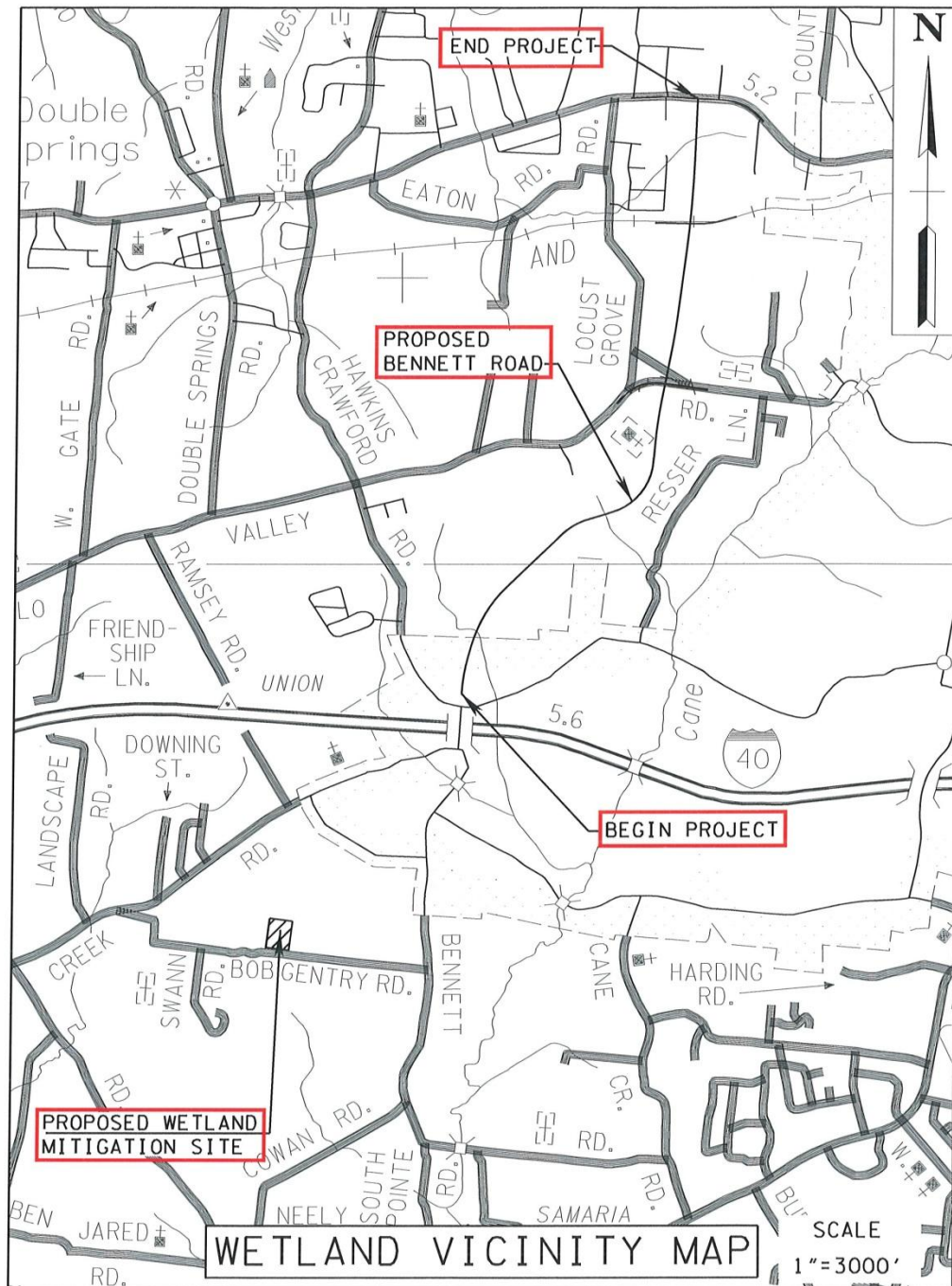
REVISED: / /

SHEET 1 OF 1

SCALE = 1:24000

CONTOUR INTERVAL 20 FEET

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET



Proposed Wetland Compensatory Mitigation for No Net Loss

Resource	Wetland Area (acre)	Status	Permanent Impact Area (acre)	Remaining Wetland Area (acre)	Percentage	Area of Mitigation (acres)
WTL-1	1.193	To be Mitigated	0.450	0.743	62%	1.800
WTL-2	0.133	To be Mitigated	0.133	0.000	0%	0.532
WTL-3	-	Not to be Impacted	-	-	-	-
WTL-4	0.098	To be Mitigated	0.025	0.073	74%	0.100
WTL-5	-	Not to be Impacted	-	-	-	-
WTL-6	0.107	To be Mitigated	0.107	0.000	0%	0.428
WTL-7	0.248	To be Mitigated	0.140	0.108	44%	0.560
WTL-8	0.076	To be Mitigated	0.076	0.000	0%	0.304
WTL-8A	-	Not to be Impacted	-	-	-	-
WTL-9	0.324	To be Mitigated	0.140	0.184	57%	0.560
WTL-10	0.950	To be Mitigated	0.483	0.467	49%	1.932
WTL-11	0.127	To be Mitigated	0.006	0.121	95%	0.024
Total Wetland Impact/Mitigation			1.600			6.240

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Proposed Stream Compensatory Mitigation for No Net Loss

Resource	Status	Existing Stream Length (feet)	Stream Relocation (feet)			Proposed Total Length (feet)	Total Net (Loss)/Gain	Mitigation Req'd (feet)
			Encapsulation	Open Channel	Riprap			
STR-3	Encapsulation	194	115	26	25	166	(28)	115
STR-4	Encapsulation/Relocation	328	64	274	34	372	44	64
STR 3 & STR -4 Totals **		522	179	300	59	538	(28)	179

Stream 3 & Stream 4 have overlapping impacts.

Resource	Status	Existing Stream Length (feet)	Stream Relocation (feet)			Proposed Total Length (feet)	Total Net (Loss)/Gain	Mitigation Req'd (feet)
			Encapsulation	Open Channel	Riprap			
STR-5	Encapsulation/Relocation	361	96	306	12	414	53	96
STR-5A	Relocation	466	0	420	0	420	(46)	0
STR-5B	Relocation	216	0	273	0	273	57	0
STR-6	Relocation	118	0	0	0	0	(118)	0
STR -5, 5A, 5B & 6 Totals **		1161	96	999	12	1107	(164)	96

Stream 5, Stream 5A, Stream 5B & Stream 6 have overlapping impacts.

Resource	Status	Existing Stream Length (feet)	Stream Relocation (feet)			Proposed Total Length (feet)	Total Net (Loss)/Gain	Mitigation Req'd (feet)
			Encapsulation	Open Channel	Riprap			
STR-7	Encapsulation	129	104	0	25	129	0	104
STR-7A	Encapsulation/Relocation	230	152	77	9	238	8	152
STR-8	Encapsulation	189	160	0	11	171	(18)	160
STR-8A	No proposed impacts	-	-	-	-	-	-	-
STR-9	Encapsulation	27	27	0	0	27	0	27
STR-10	Encapsulation	140	96	0	44	140	0	96
STR-10A	Bridge	-	-	-	-	-	0	0
STR-10B	No proposed impacts	-	-	-	-	-	-	-
STR-11	No proposed impacts	-	-	-	-	-	-	-
STR-11A	No proposed impacts	-	-	-	-	-	-	-
Stream Impact/Mitigation Totals **		715	539	77	89	705	(18)	539

Proposed bridge will span 46 feet of the existing STR-10A and will not be impacted during construction

Stream Mitigation Summary table		Feet
Mitigation required for permanent encapsulations		814
Mitigation required for permanent length of stream loss **		210
Total Mitigation required for streams		1024

** In accordance with TDEC regulations an increase in linear footage in the relocation of one stream does not compensate for any linear footage loss of another.

Bennett Road Proposed Stream Characteristics											
Site	Proposed Impact	Proposed Structure	Length (FT)	Depth (in)	Bottom Width (FT)	Slope Sides L/R/T	Average Slope	Side Slope/Channel Lining	Proposed Substrate - Match Existing in open channels and pools	Notes	
STR-3	Encapsulation	104" Conc. Box Cul.	115	-	-	-	0.866%	Class B Riprap	Gravel 60%, Sil 30%, Cobble 10%	Riprap at outfall is to be embedded & voids filled with natural substrate. No vegetation required	
STR-4	Encapsulation/Relocation	36" Conc. Pipe	64/308	20-32	6	21/2/1	2.889%	Class II TRM/Class B Riprap	Sil 70%, gravel 25%, cobble 5%	Riprap at outfall is to be embedded & voids filled with natural substrate. Vegetation required. See below	
STR-5	Encapsulation/Relocation	48" Conc. Pipe	96/138	18-30	4-8	0.14/1	2.550%	Class II TRM/Class C Riprap	Sil 100%	Riprap at outfall is to be embedded & voids filled with natural substrate. Vegetation required. See below	
STR-5A	Relocation	N/A	435	8-12	0.5	3.5/3/2.1	2.375%	Class II TRM	Sil 80%, gravel 20%	Vegetation required. See below	
STR-5B	Relocation	N/A	273	12-18	2.5-6	4.5/3/1	1.563%	Class II TRM	Sil 60%, gravel 40%	Vegetation required. See below	
STR-6	Relocation	N/A	314-6	15	-	-	-	Class II TRM	Sil 100%	Vegetation required. See below	
STR-7	Encapsulation	104" Conc. Box Cul.	103	-	-	-	0.642%	Class B Riprap	Sil 100%	Riprap at outfall is to be embedded & voids filled with natural substrate. No vegetation required	
STR-7A	Encapsulation/Relocation	36" Conc. Pipe	158/96	25	6	8.1/3/1	0.610%	Class II ECB/Std	Clay 60%, sil 40%	Vegetation required. See below	
STR-8	Encapsulation	36" Conc. Pipe	160	-	-	-	4.060%	Class B Riprap	Sil 70%, gravel 30%	Riprap at outfall is to be embedded & voids filled with natural substrate. No vegetation required	
STR-8A	No proposed impacts	-	-	-	-	-	-	-	-	-	
STR-9	Encapsulation	18" Conc. Pipe	27	-	-	-	0.928%	Class II ECB/Std	Sil 60%, gravel 40%	No vegetation required	
STR-10	Encapsulation	60" Conc. Pipe	98	-	-	-	1.325%	Class B Riprap	Gravel 70%, cobble 20%, sil 10%	Riprap at outfall is to be embedded & voids filled with natural substrate. No vegetation required	
STR-10A	Bridge	3-span Bridge	Proposed bridge spans the Nashville Eastern Railroad and STR-10A. No impacts are proposed to the existing stream.	-	-	-	-	-	-	-	
STR-10B	No proposed impacts	-	-	-	-	-	-	-	-	-	
STR-11	No proposed impacts	-	-	-	-	-	-	-	-	-	
STR-11A	No proposed impacts	-	-	-	-	-	-	-	-	-	

Approved Riparian Vegetation for Stream Relocation - No more than 20% of any one species is to be planted

Container & Bare Rooted: Red Maples, Sweetgums, Black Cherrises, Green Ashes, Tulip Poplars or Redbuds.

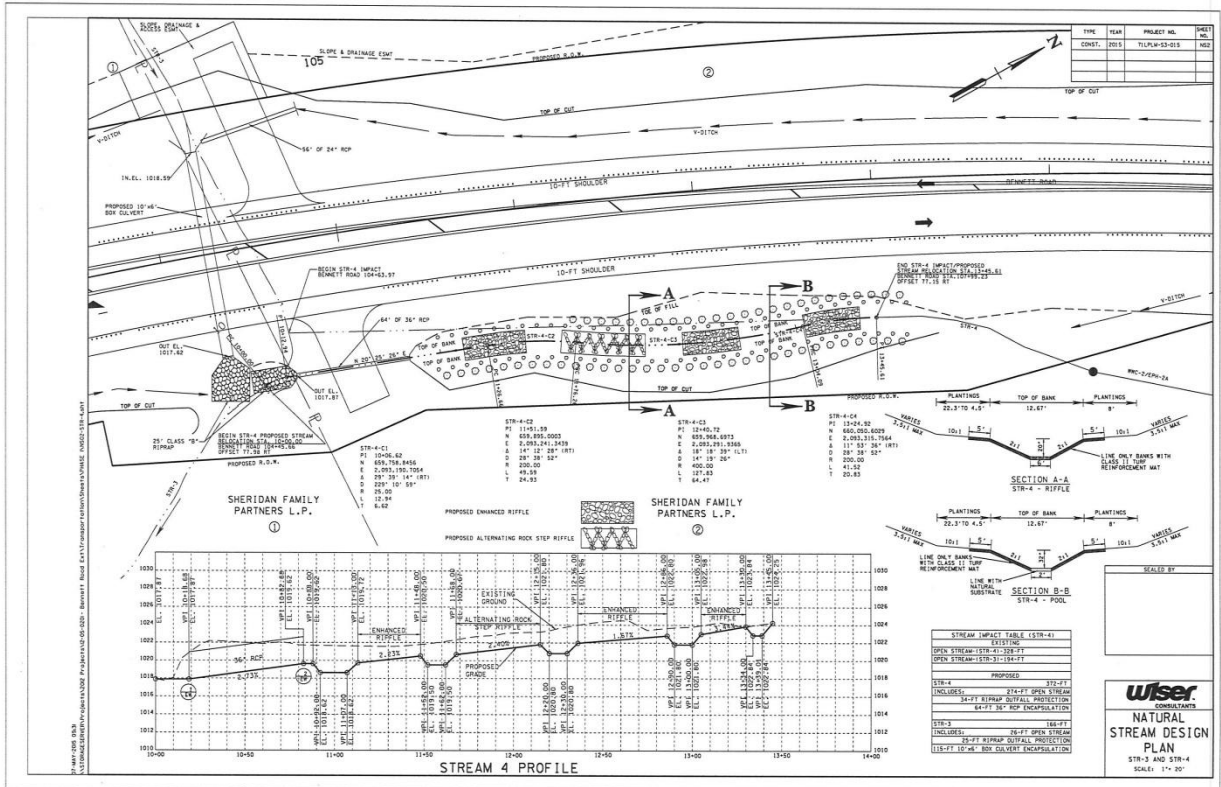
Live Stakes: Black Willows, Silky Willows, Sandbar Willows, Buttonbushes, Silky Dogwood or Ilex/burners.

Bennett Road Proposed Wetland Characteristics								
Site	Proposed Impact	Temporary Impact Area (Acres)	Permanent Impact Area (Acres)	Emergent Wetland	Volume of Temporary Impact (CY)	Volume of Permanent Impact (CY)	Plantings required	Notes
WTL-1	Partial Fill	0.170	0.450	N	275	726	Plantings required see note 8.	1. 12" of topsoil is to be removed from permanent and temporary impacted wetland areas and stockpiled.
WTL-2	Partial Fill	0.000	0.133	Y	0	214	No planting in emergent Wetlands.	2. Wetland areas that are not to be disturbed are to be clearly marked with orange high visibility fence (HVF).
WTL-3	No proposed impacts	-	-	-	-	-	-	3. When limits of the wetlands are located beyond the ROW, fencing is to be turned and placed along easement limits for 10' gradient of the wetland.
WTL-4	Partial Fill	0.007	0.025	Y	12	41	No planting in emergent Wetlands.	4. Wetland hydrology is to be maintained with an 18" high earth berms. Berms are to be lined with Class I ECB and install riprap to maintain excavations.
WTL-5	No proposed impacts	-	-	-	-	-	-	5. HVF will be placed along top of berms when berms are constructed within the ROW.
WTL-6	Completely Filled	0.000	0.107	N/A	0	173	No planting in emergent Wetlands.	6. Silty silt with wire backing will be placed no more than 3-ft from the HVF. Silty fill will be placed outside of the area not to be disturbed.
WTL-7	Partial Fill	0.030	0.140	Y	49	226	No planting in emergent Wetlands.	7. When passing through a wetland parallel to the ROW silty fill is to be placed on the ROW line or at the top of bank to minimize impacts to the wetland. HVF will be placed no more than 3-ft into the wetland beyond the silty fill to delineate the wetland area not to be disturbed.
WTL-8	Completely Filled	0.000	0.076	N/A	0	123	No planting in emergent Wetlands.	8. Acceptable plantings are to be bare root seedlings and be selected from Red maples, American beech, Sycamores, Green ash or Box elders. Seedlings are to be selected such that no one species will comprise of more than 20% of the plantings
WTL-9A	No proposed impacts	-	-	-	-	-	-	
WTL-9	Partial Fill	0.011	0.140	Y	18	226	No planting in emergent Wetlands.	
WTL-10	Partial Fill	0.000	0.483	N	0	780	No Planting Required.	
WTL-11	Partial Fill	0.009	0.006	N	15	10	No Planting Required.	
	Total	0.227	1.885		369	2019		

Bennett Road
Proposed Characteristics of other Environmental Features

Site	Proposed Impact	Impacted Area	Depth	Volume of Fill Required (CY)	Description	Proposed Remediation Notes
PND-4	No proposed impacts	-	-	-	-	Notes for Completely Filled Pond.
PND-5	Completely Filled	0.240 ac	4-ft (assumed)	1549	Main-made pond - General water quality is poor- catties access and agriculture runoff. No berms, fish, algae, or aquatic life observed.	1. Completely drain pond through a sediment filter bag or approved device. Excavation should be done in the dry. 2. Over excavate entire pond and line with Type III Geotextile fabric. 3. Backfill pond with at least 3-ft of Graded solid rock and wrap with Type III Geotextile fabric. 4. Cise rock with a sweep of disposal and seed and mulch to stabilize site.
PND-6	No proposed impacts	-	-	-	-	Notes for Partially Filled Pond.
PND-7	Completely Filled	0.161 ac	4-ft (assumed)	1039	Main-made pond - General water quality is fair. No berms, fish, algae, or aquatic life observed.	1. Completely drain pond through a sediment filter bag or approved device. Excavation should be done in the dry. 2. Over excavate pond to limits of slope and line with Type III Geotextile fabric. 3. Backfill pond with at least 3-ft of Graded solid rock and wrap with Type III Geotextile fabric. 4. Cise rock with a sweep of disposal to normal pond elevation of the remaining pond and seed and mulch to stabilize site. 5. Work will be performed in the driest time of year as possible and as quickly as possible to minimize impacts to down gradient ponds.
PND-8	Partially Filled	0.155 ac	4-ft (assumed)	1001	Main-made pond - General water quality is fair. No berms, fish, algae, or aquatic life observed.	
PND-9	No proposed impacts	-	-	-	-	
PND-10	No proposed impacts	-	-	-	-	
PND-11	No proposed impacts	-	-	-	-	
PND-12	Partially Filled	0.053 ac	4-ft (assumed)	343	Main-made pond - General water quality is fair. No berms, fish, algae, or aquatic life observed.	Seasonal Repair Notes 1. Excavate to remove any unsuitable material as directed by the geotechnical engineer. 2. Place at least 3-ft of graded solid rock fill over the excavated area and line wrap with Type III Geotextile fabric. 3. Extend fill to the top of slope to allow water to discharge through the embankment. Do not overcover/open open graded rock.
SEP-1	Filled	N/A	Unknown	456	Hydraulic connection for WTL-8 and PND-7	As-Built Notes/Notes: 1. Riprap repair will be per TPOOT standards - Singleline Treatment Option 2 or 2A. 2. Standards are to be based on the recommendations of a qualified geotechnical engineer or engineering geologist considering actual field conditions encountered after excavation.
SEP-2	Filled	N/A	Unknown	456	Hydraulic connection for WTL-8 and PND-7	
ENK-1	Filled	2-ft Diameter	up to 8-ft	300		





STREAM 4 PROFILE

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Project Photos

Northern Connector Route from I-
40 to US-70 (SR-24)
Putnam County, Tennessee
PIN 117571.00 and 117572.00
P.E. No. 71-LPLM-S3-015 and 71-
LPLM-S3-016

July 29-31, 2013



Photograph No. 5

WTL-1
STA. 124+00±CL

Receiving Waters: Unnamed
tributary to Cane Creek

View looking southeast.

Note: Photo depicts an interior
view of WTL-1. Portions of WTL-1
are dominated by trees and other
portions are dominated by
emergent vegetation.



Photograph No. 6

WTL-1
STA. 125+50±R

Receiving Waters: Unnamed
tributary to Cane Creek

View looking west.

Note: Photo depicts an overall view
of the southwestern portion of
WTL-1. The surrounding land use
is dominated by active livestock
pasture.

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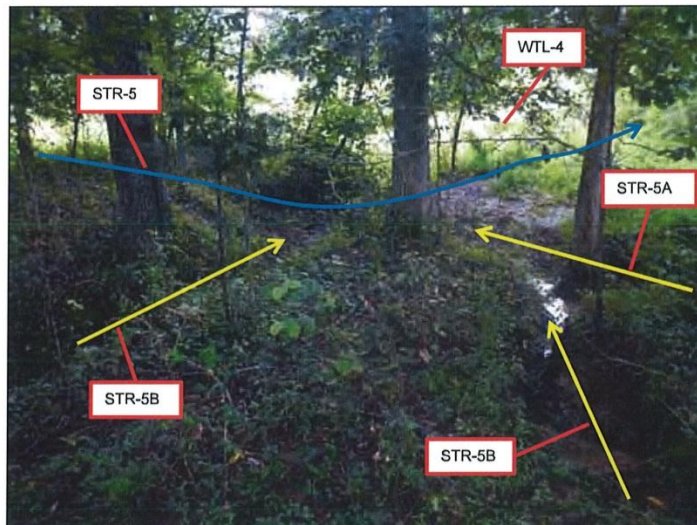
Photograph No. 9

STR-5B and WTL-2
STA. 129+50±R

Receiving Waters: Unnamed
tributary to Cane Creek

View looking west.

Note: Photo depicts an up-gradient
view of STR-5B, which carries
drainage from WTL-2 to STR-5.
The northeastern end of WTL-2 is
depicted in the background of the
photo.



Photograph No. 10

STR-5A, STR-5B, STR-5,
and WTL-4
STA. 130+15±R

Receiving Waters: Unnamed
tributary to Cane Creek

View looking southeast.

Note: Photo depicts the confluence
of STR-5A, and STR-5B
with STR-5. Evidence of impacts
by cattle to the channel of STR-5
at this confluence was observed
during the field study. WTL-4
directly abuts STR-5 in the far
background of the photo (also see
Photos 11 and 12).

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Northern Connector Route from I-
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Putnam County, Tennessee
PIN 117571.00 and 117572.00
P.E. No. 71-LPLM-S3-015 and 71-
LPLM-S3-016

July 29-31, 2013



Photograph No. 13

STR-5
STA. 131+25±R

Receiving Waters: Unnamed
tributary to Cane Creek

View looking south.

Note: Downstream view of STR-5.
Cattle were observed in the
forested area adjacent to the right
descending bank of STR-5 at the
time of the field study.



Photograph No. 14

STR-5 and STR-6
STA. 131+75±L

Receiving Waters: Unnamed
tributary to Cane Creek

View looking southeast.

Note: Photo depicts a downstream
view of STR-6 near its confluence
with STR-5.

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July 29-31, 2013



Photograph No. 17

STR-7
STA. 145+25±CL

Receiving Waters: Unnamed
tributary to Cane Creek

View looking north.

Note: Upstream view of STR-7
located within an active livestock
pasture.



Photograph No. 18

STR-7
STA. 145+25±CL

Receiving Waters: Unnamed
tributary to Cane Creek

View looking north.

Note: Close-up view of the channel
of STR-7.

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INC.
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Project Photos

Northern Connector Route from I-40 to US-70 (SR-24)
Putnam County, Tennessee
PIN 117571.00 and 117572.00
P.E. No. 71-LPLM-S3-015 and 71-LPLM-S3-016

July 29-31, 2013



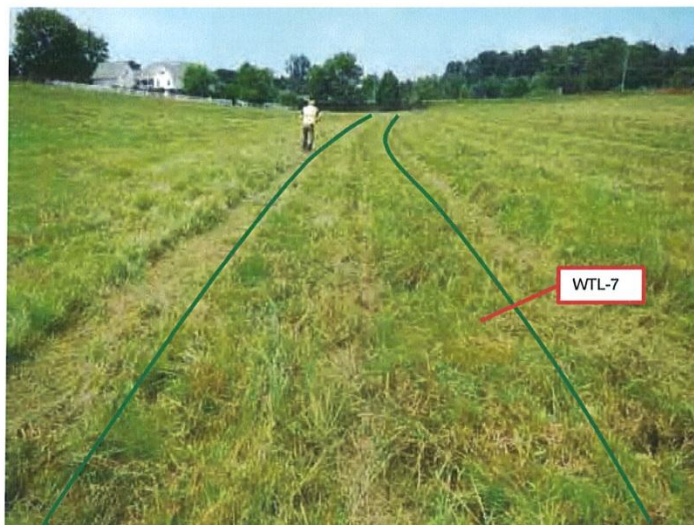
Photograph No. 23

WTL-7
STA. 174+00±R to 178+25±L

Receiving Waters: Unnamed tributary to Cane Creek.

View looking northwest.

Note: Photo depicts WTL-7, which begins at a RCP outlet (upper left) beneath Buffalo Valley Road (fill slope depicted in background).



Photograph No. 24

WTL-7
STA. 174+00±R to 178+25±L

Receiving Waters: Unnamed tributary to Cane Creek

View looking northwest.

Note: Photo depicts another view of WTL-7. WTL-7 is located within an active livestock pasture. WTL-7 is a linear slope wetland with an average width of approximately 10-12 feet. The vegetation had recently been bush-hogged at the time of the field study.